

| qualitative enzyme levels [AU] | enzyme profile                                                                     |                                                                                     |                                                                                     |                                                                                     | enzymes exhibiting depicted profiles     |                                                           |                     |
|--------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------------------|---------------------|
|                                | glucose<br>mannose<br>galactose<br>pyruvate                                        |                                                                                     |                                                                                     |                                                                                     | TCA cycle                                | respiratory chain                                         | ethanol production  |
|                                | unchanged                                                                          |                                                                                     |                                                                                     |                                                                                     |                                          |                                                           |                     |
|                                |    |    |    |    | Cit3p, Kgd2p, Lat1p, Lsc2p, Yea6p        | Cox5ap, Cox5bp, Cox8p, Cox9p, Cyt1p, Nde1p, Qcr9p, Qcr10p | Pdc5p, Pdc6p, Sfa1p |
|                                | independent pattern                                                                |                                                                                     |                                                                                     |                                                                                     |                                          |                                                           |                     |
|                                |    |    |    |    |                                          |                                                           | Adh4p               |
|                                |    |    |    |    |                                          | Qcr8p                                                     |                     |
|                                |    |    |    |    |                                          | Cox7p, Qcr7p                                              |                     |
|                                | low versus high degree of respiration                                              |                                                                                     |                                                                                     |                                                                                     |                                          |                                                           |                     |
|                                |  |  |  |  |                                          |                                                           | Adh5p               |
|                                |  |  |  |  | Kgd1p, Pdb1p, Sdh2p                      | Cox12p, Ndi1p, Qcr6p, Rip1p                               |                     |
|                                | stepwise related to degree of respiration                                          |                                                                                     |                                                                                     |                                                                                     |                                          |                                                           |                     |
|                                |  |  |  |  | Mae1p                                    |                                                           | Pdc1p               |
|                                |  |  |  |  | Cit1p, Idh1p, Idh2p, Lpd1p, Fum1p, Mdh1p | Cor1p, Cox4p, Cox6p                                       |                     |
|                                | related to maximal degree of respiration                                           |                                                                                     |                                                                                     |                                                                                     |                                          |                                                           |                     |
|                                |  |  |  |  | Aco2p, Idp1p, Pdx1p                      |                                                           |                     |
|                                |  |  |  |  | Lsc1p, Pda1p, Sdh4p                      | Qcr2p                                                     | Adh2p               |